

REMARKS

Reconsideration of this application as amended is respectfully requested.

By the above amendment, applicants have: 1) amended claims 1, 6, 10, and 11; 2) added claims 12-14; and 3) canceled no claims. As such, claims 1-2 and 5-14 are now pending. Support for the amendment is found in the specification, the drawings, and in the claims as originally filed. Applicants submit that the amendment does not add new matter. Applicants respectfully request reconsideration of the present application and consideration of the following remarks and the claims.

Applicants reserve all rights with respect to the applicability of the Doctrine of Equivalents.

Claim Objections

“Claims 10-11 are objected to because of the following informalities.”

Appropriate corrections have been made.

Claim Rejections - 35 U.S.C. § 112

“Claims 1-2 and 5-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.”

The Examiner rejected claims 1-2 and 5-8 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. In particular, the Examiner stated that the claim limitation “by scanning across a range of bandwidths until one or more of the network performance metrics is/are optimized” in claim 1 is not clear as to how scanning the bandwidths that the network performance metrics is/are optimized or become optimized as claimed. Applicants respectfully disagree. This has been clearly and sufficiently described in the specification as will be clear to a person of ordinary skill in the art. For example, paragraphs [0026] and

[0031] and, in particular, FIGS. 5A-5C of the present application disclose this aspect of the claim. (For example, various network metrics are plotted against a control bandwidth in FIGS. 5A-5C. The so-called giant resonance points are shown in these figures, which are the points where one or more of the network performance metrics is/are optimized.) Furthermore, the specification teaches with clear and definite terms, e.g., in paragraph [0034], various techniques that can be used to determine these resonance points, for example, by using a search that sweeps from a low control bandwidth to a higher control bandwidth. The standard test for definiteness under 35 U.S.C. § 112, second paragraph, is whether “those skilled in the art would understand what is claimed when the claim is read in light of the specification” (Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565-1576, 1 USPQ2d 1081-1088 (Fed. Cir. 1986)). Applicants respectfully submit that claim 1 as a whole, including the limitation “scanning across a range of bandwidths until one or more of the network performance metrics is/are optimized”, apprises one skilled in the art of its scope with full clarity and definiteness, and therefore they respectfully submit that the current rejection is improper. The foregoing argument also applies to claim 6.

The Examiner further stated that the claim language “the control node is operated at ...” in claim 1 is not clear as to whether it is reciting “operating a control node ... at ...”. Applicants have amended the claim without admitting the propriety of the rejection.

Furthermore, the Examiner stated that the claim language “the best observed resonance point” in claims 1 and 6 lacks clear antecedent basis. In view of the currently amended claims, applicants respectfully request withdrawal of the current rejection.

Accordingly, applicants respectfully request withdrawal of the 112 second paragraph rejection on claims 1, 2, and 5-8.

Claim Rejections - 35 U.S.C. § 102

“Claims 1-2 and 5-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Loguinov et al (2002/0169880).”

The Office Action rejected claims 1-2 and 5-11 over Loguinov et al. In particular, the Office Action stated that Loguinov et al. discloses each and every element of independent claim 1, 6, or 9. Applicants respectfully disagree.

Claim 6, for example, currently recites, as amended:

6. A method, comprising:
 - determining at least one resonance point of network performance metrics at a control point inside a communication network by scanning across a range of bandwidths until one or more of the network performance metrics is/are optimized; and
 - operating a control node inside the communication network at a packet bandwidth corresponding to a resonance point from the at least one resonance point, wherein the control node is located in a communication link between at least one server and at least one client, and wherein the control point is located nearby or in the control node.

The Examiner asserted that Loguinov et al. shows each and every element of claim 6. Applicants respectfully disagree. First of all, Loguinov et al. is merely concerned with a method (and a device) for *estimating* the bottleneck bandwidth over a communication network, and it does not teach, either explicitly or implicitly, the claim limitations of claim 6.

In rejecting claim 6, the Examiner broadly relied on paragraphs [0010], [0030], [0032], [0033], claim 1, and abstract of Loguinov et al. without particularly pointing out where exactly the claim elements of claim 6 (or any other pending claims) are disclosed. Applicants respectfully request the Examiner to point out the exact place or places where *each of the claim limitations* of claim 6 is taught in Loguinov et al. Applicants respectfully submit that Loguinov et al. does not disclose the claim limitation “determining at least one resonance point of network performance metrics at a control point ...”, nor does it teach “determining [the] at least one resonance point ... by scanning across a range of bandwidths until one or more of the network performance metrics is/are optimized”. Applicants further submit that Loguinov et al. does not disclose the claim limitation “operating a control node inside the

communication network at a packet bandwidth corresponding to a resonance point ...”, nor does it teach “operating [the] control node ... wherein the control node is located in a communication link between at least one server and at least one client”, among other things.

The Examiner alleged that “paragraph 0032 [of Loguinov et al.] which recite the estimates being used for congestion control between the server system and the client system clearly anticipate the control point located in the communication link between the server and the client for determining network performance metrics across a range of bandwidth.” Applicants respectfully disagree, and they respectfully submit that they do not follow the reasoning given by the Examiner. Anticipation requires identity of invention. Applicants respectfully submit that the Examiner failed to show that the quoted part of Loguinov et al. describes the claim elements as alleged by the Examiner. Loguinov et al. is, among other things, completely silent on the “control point inside a communication network” which is located “between at least one server and at least one client” and “scanning across a range of bandwidths”, for example, to find at least one point where “one or more of the network performance metrics is/are optimized”. Applicants respectfully submit that a person of ordinary skill would not concur with the Examiner’s allegation.

The Examiner further alleged that “paragraph 0030 [of Loguinov et al.] which recite the bottleneck router between the server and client clearly anticipate the control node.” Applicants respectfully disagree, and they respectfully request the Examiner to explain to them how “the control node” is clearly anticipated by “the bottleneck router”. It should be noted that, in claim 6, the “control node” is operated “at a packet bandwidth corresponding to a resonance point from the at least one resonance point” and that “at least one resonance point of network performance metrics” is determined at “a control point” which is “located nearby or in the control node”. It should be further noted that, in Loguinov et al, the bandwidth estimation is done at the client end as clearly stated in the description (e.g., in abstract), and, for example, in figure 2 of Loguinov et al.

The Examiner further alleged that “paragraph 0033 and claim 1 [of Loguinov et al.] which recite mechanism being used to achieve performance improvements and the step of determining the best bandwidth for the following transmission of data packets from the server

to the client clearly anticipate optimizing the network performance metrics as claimed.” Applicants respectfully disagree. First of all, applicants respectfully submit that they fail to read from the quoted part of Loguinov et al., or from anywhere in Loguinov et al., what the Examiner alleged to have read. Applicants respectfully submit that the quoted part of Loguinov et al. is merely concerned with a “bandwidth estimation mechanism” and it has no relevance to the claimed invention as claimed in claim 6. Furthermore, Loguinov et al. is completely silent on “optimizing the network performance metrics”, contrary to the allegation by the Examiner, or on “determining at least one resonance point of network performance metrics ... by scanning across a range of bandwidths until one or more of the network performance metrics is/are optimized”. Applicants respectfully submit that a person of ordinary skill in the art would not agree with the Examiner’s allegation that “optimizing the network performance metrics” is clearly anticipated by “a method for estimating bandwidth”. The Examiner is respectfully reminded that “the identical invention must be shown in as complete detail as is contained in the ... claim” to anticipate a claim (Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)).

Accordingly, applicants respectfully submit that the Examiner failed to establish a prima facie case of anticipation by identifying each and every element of claim 6. In sum, Loguinov et al. does not disclose, among other things, the claim limitation “determining at least one resonance point of network performance metrics at a control point ...” or “determining at least one resonance point ... by scanning across a range of bandwidths until one or more of the network performance metrics is/are optimized”, and the claim limitation “operating a control node inside the communication network at a packet bandwidth corresponding to a resonance point ...” or “operating a control node ... wherein the control node is located in a communication link between at least one server and at least one client”. Therefore, applicants respectfully submit that the current rejection on claim 6 is improper, and they respectfully request withdrawal of the rejection. The foregoing argument also applies to claims 1 and 9 and applicants respectfully submit that these claims are patentable over Loguinov et al.

With regards to claims 2, 5, 7, 8, and 10-14, applicants respectfully submit that these pending claims are patentable over the prior art for at least similar reasons given with respect to their respective base claims, claims 1, 6, and 9.

CONCLUSION

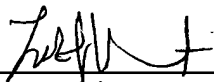
Applicants respectfully submit that the applicable rejections and objections have been overcome.

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due or credit any overages. If an extension is required, applicants hereby request such extension.

Respectfully Submitted,

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